

APPENDIX C

The following examples illustrate the invention.

Exemplary Scenarios for Reserving a Namespace

The following examples illustrate reserving a namespace.

Company A has just signed for NSP hosted services. Included in these services is e-mail as well as authentication system accounts. The administrator for A.com goes to the NSP web site and signs up to get these services on behalf of Company A. The NSP service begins a process by which they own the DNS records for the namespace (this might take up to 24 hours). Once that is accomplished, the NSP servers call a SOAP interface that the authentication system hosts and requests the namespace to be reserved. The namespace is reserved instantaneously. This means that only the NSP can create EASI accounts in this namespace. At the same time, creation of accounts via the authentication system registration page is disallowed.

In another example, Company A has just signed up for an affiliate's service that includes authentication system accounts but no e-mail. The administrator for A.com goes to the affiliate's web site and signs up to get these services on behalf of the company. The affiliate begins a process by which they own the DNS records for the namespace (this might take up to 24 hours). Once that is accomplished, the affiliate's servers call a SOAP interface that the authentication system hosts and requests the namespace to be reserved. The namespace is reserved instantaneously.

The only difference between the scenarios listed above is the e-mail provisioning in the first scenario. For the second scenario, the namespace is reserved just as in the case of first scenario, but there is no real "e-mail" that is provisioned.

Exemplary Scenarios for Releasing a Namespace

The following example illustrates releasing a namespace.

Company A, which was until now using services hosted by an NSP, decides that it no longer needs these services. The administrator of A.com goes to the NSP web page and informs the NSP service that Company A would like to cancel its service with the NSP. Among other things, the NSP tells the authentication system service that the accounts that were being managed by NSP on behalf of A.com are no longer the responsibility of NSP. Transparent to Company A (and A.com), all accounts in the namespace are now marked as not “managed”. Fred, who is an employee of Company A, is now able to completely “own” his authentication system account.

Exemplary Scenario for Creating a User Account Associated with a Namespace

The following example illustrates creating a user account.

After reserving a namespace, the administrator of A.com waits for a few hours and then goes to the NSP web site and starts creating accounts for the people inside the company. The administrator enters the names of the users on the web page provided by the NSP and selects a password on behalf of the user and then informs the user that the user must go to the authentication system member services page and change the secret question and answer (as a hint to the user to recall a forgotten password). The administrator enters a secret Q/A for the accounts. Behind the scenes, the NSP service sends a request to the authentication server to create these accounts.

Exemplary Scenarios for Listing User Accounts Associated with a Namespace

The following examples illustrate listing user accounts associated with a namespace.

Fred works for Company A. He signed up for an authentication system account using his e-mail Fred@A.com. A few weeks later, Company A starts using the services of NSP for e-mail

hosting. When the administrator tries to create authentication system accounts for everyone, the administrator can see a list of accounts already existing in the namespace. The administrator notices that Fred already has an account with the authentication system and does not create another account for him. The next time Fred tries to sign-in with his authentication system account, he is told that his account now falls within a managed namespace and that he must either consent to being in a managed namespace or change his sign-in name to one that does not belong to the managed namespace. Fred consents to staying in the managed namespace and can now use his account normally.

The invention also includes the following modified scenarios using various combinations of the APIs of the invention.

In the example above, if the administrator asks Fred if he already has an account, and does not create another account for him, then when Fred tries to sign-in, he is presented with a consent page informing him that in order to continue using the same sign-in name, he must consent to being managed.

Alternatively, in the above scenario, the administrator will create another authentication system account for Fred (since the administrator has no way of knowing if Fred has an account). This will cause a forced change sign-in name on Fred's old account. The next time Fred tries to sign-in, he can do so with the account that he originally had (in which case he will be asked to change sign-in name) or he can sign in with the new account the administrator has created (which will need no consent). In this case, Fred decides to sign-in with the new account. Fred can recover his old identity (buddy lists, etc.) by changing his old account name to something else.

Alternatively, Joe already has an authentication system account with the account name Joe@B.com. Now, as part of A.com, he is asked to create a new account Joe@A.com. Joe

would like to merge both accounts or at least be able to change the account name so that he has only one authentication system account that is Joe@A.com. The invention provides such functionality.

In yet another example, Fred is part of Company A, which currently does not use the NSP. Fred's e-mail account is Fred@A.com and he signs up for an authentication system account with this e-mail. When he gets a validation mail (signaling creation of the account), he validates his account. Fred now leaves Company A, which deletes the e-mail address that Fred owned. Company A also starts using the NSP services. Now a new Fred joins the company and A.com would like to give the account name Fred@A.com to the new Fred. However, since they are now using the NSP for hosting e-mail, Company A needs to create an authentication system account with the sign-in name Fred@A.com. Since the namespace A.com is "managed" by NSP, the administrator of A.com creates a new EASI account by going to the NSP web page. The administrator gives the password for that account to the new Fred who will be able to use the account immediately. The old Fred will not lose his data associated with this authentication system account.

Exemplary Scenario for Resetting a Namespace Password

The following example illustrates resetting a namespace password.

Fred has forgotten his password to his authentication system account. He goes to the administrator of his organization who in turn goes to the NSP web page, selects a password and resets the password for Fred. The administrator then supplies Fred with the new password. The administrator would not ask for Fred's country, region, zip code or ask him for the secret Q/A though he may be able to supply them. If Fred went to the authentication system support, he

would be told that they are unable to reset his password and that Fred needs to go to NSP support to be able to have his password reset.

Exemplary Scenario for Updating a User Profile

The following example illustrates updating a user profile.

When an ASP creates an account, a mailbox is automatically setup for that user in the database. If that user does not use the account for 90 days, the ASP will de-activate the mailbox, and clear the bit in the database to indicate that the user does not have a mailbox anymore.

Exemplary Scenarios for Changing a User Sign-In

The following examples illustrate changing a user sign-in.

Fred has an account Fred@authenticationsystem.com and decides that he would like to change his sign-in name to FredSmith@authenticationsystem.com. He goes to the member services page and clicks on the “change sign-in name” button that allows him to change his sign-in name. From now on, he uses the sign-in name FredSmith@authenticationsystem.com.

In another example, Joe works for a company A and has an e-mail account Joe@A.com. He signs up for an authentication system account with this name. Company A decides to use the services of an NSP (e.g. NSP) for hosting its e-mail. The namespace A.com is now “managed” by the NSP. A few days later, Joe is fired. The administrator for A.com goes to the NSP web site and clicks on a button, which allows the administrator to de-provision the account Joe@A.com. The next time Joe tries to sign-in with the name Joe@A.com, the login page warns him that his account was part of a managed namespace and that Company A has decided to re-claim that name and that he must change his sign-in name to something other than ending in A.com. Joe types in a new name such as Joe@authenticationsystem.com. His profile information is intact.

From now on Joe uses the name Joe@authenticationsystem.com for all his authentication system sign in activities.

In another example, Sue works for Company A and has an e-mail address Sue@A.com. She signs up for an authentication system account using that e-mail address. One day Sue decides to quit the company. When she leaves the company, her e-mail account is canceled but she carries on using the EASI account Sue@A.com. After a few months, Company A decides to use the services of an NSP for hosting e-mail. As part of the deal, everyone gets EASI accounts using the e-mail accounts they had. Soon, a new Sue joins the company. The administrator of A.com goes to the NSP web site and creates a new account Sue@A.com. The new Sue immediately starts using this account without any problems. A few days after the administrator created an account for the new Sue, the old Sue decides to check her account. She tries to sign-in with her sign-in name (Sue@A.com) but the login page tells her that her account is now part of a managed namespace and that her and in order to keep her account information, she will need to change her sign in name to something other than that belonging to the A.com namespace. She picks a new name Sue@authenticationsystem.com and types it in. She is immediately able to see her portfolio. From now on the old Sue uses the name Sue@authenticationsystem.com.

In yet another example, Mary Smith works for Company A, which is using the services of an NSP for its e-mail needs. Her authentication system account (created by the NSP) is MarySmith@A.com, as is her e-mail. Mary now decides to get married and change her last name. She goes to the authentication system member services page and attempts to change her sign-in name but is told that she needs to go to her administrator to request the change. She goes to the administrator of the company A.com and asks the administrator to change her e-mail and authentication system account name to MarySlater@A.com. The administrator goes to the NSP

web site and makes this change on her behalf. Mary's e-mail and authentication system sign in name are now changed and she starts using her new account name MarySlater@A.com to access her account information such as her e-mail.

In yet another example, Joe runs a small business and has a web site called JoesCoffee.com. He now wants to have his e-mail hosted by the NSP but is not entirely sure if he wants to start using the NSP services for a long period of time. So, he signs up for e-mail service hosted by NSP (e.g., A.com) and his e-mail address is Joe@A.com. After a few days, Joe finds that the e-mail service is reliable and offers value to him and he decides to ask his NSP to create his e-mail in a domain that he hosts. So he decides to change his sign-in name to Joe@JoesCoffee.com. He goes to the authentication system member services web page where he tries to change his sign-in name; he is informed that since this is a managed account, he must go to his administrator to request a change. He then goes to the NSP portal page where he requests that his sign-in name be changed from Joe@A.com to Joe@JoesCoffee.com. The request is processed immediately and from now on Joe's sign-in name is Joe@JoesCoffee.com. A few days later, Joe decided that he really does not like the e-mail service hosted by NSP for which he is paying a monthly fee. Instead he prefers the lower monthly fees charged if his e-mail address was Joe@A.com. So, he goes to the NSP portal web site and requests that his name be changed back to Joe@A.com. The change is processed instantaneously and from now on Joe's sign in name is Joe@A.com.

In an alternative example, Joe's e-mail address is Joe@A.com, which he uses to sign up for an authentication system account. Now, Joe decides to change his e-mail provider. His e-mail address changes to Joe@B.com. Joe now goes to the authentication system member services and clicks on the change sign-in name link. He enters his new e-mail address. However, it turns out

that someone has already signed up for an account using the e-mail address Joe@B.com (clearly Joe is the correct owner of the e-mail address). When Joe gets an error message saying that the sign-in name is already taken, he clicks on the link that displays "Click here if this e-mail address really belongs to you." This link guides Joe through a process where he is able to change his sign-in name while simultaneously contesting the Joe@B.com account.